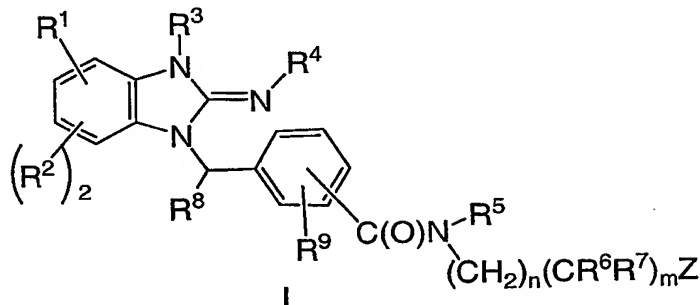


## WHAT IS CLAIMED IS:

1. A compound represented by formula I:



or a pharmaceutically acceptable salt or solvate thereof, wherein:

R<sup>1</sup> represents H or is independently selected from the group consisting of:

a) OH, halo, CO<sub>2</sub>R<sup>a</sup>, C(O)NR<sup>b</sup>R<sup>c</sup>, NR<sup>b</sup>R<sup>c</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup>;

b) C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl, C<sub>2-10</sub>alkynyl, OC<sub>1-10</sub>alkyl, OC<sub>3-10</sub>alkenyl and OC<sub>3-10</sub>alkynyl, said groups being optionally substituted with:

(1) 1-5 halo groups up to a perhaloalkyl group;

(2) 1 oxo group;

(3) 1-2 OH groups;

(4) 1-2 C<sub>1-10</sub>alkoxy groups, each optionally substituted with:  
up to five halo or a perhaloalkoxy, 1 OH or CO<sub>2</sub>R<sup>a</sup> group;

(5) 1 CO<sub>2</sub>R<sup>a</sup> or S(O)<sub>p</sub>R<sup>d</sup>;

(6) 1-2 Aryl, Hetcy or HAR groups, each optionally substituted as follows:

(a) 1-5 halo groups,

(b) 1 OH, CO<sub>2</sub>R<sup>a</sup>, CN, S(O)<sub>p</sub>R<sup>d</sup>, NO<sub>2</sub> or C(O)NR<sup>b</sup>R<sup>c</sup>,

(c) 1-2 C<sub>1-10</sub>alkyl or alkoxy groups, each optionally substituted with:

1-5 halo, up to perhaloalkyl, and 1-2 OH or CO<sub>2</sub>R<sup>a</sup> groups; and

(d) 1-2 phenyl rings, each of which is optionally substituted as

follows: 1-5 halo groups up to perhalo, 1-3 C<sub>1-10</sub>alkyl or alkoxy groups, each being further optionally substituted with 1-5 halo up to perhalo, or 1-2 hydroxy or CO<sub>2</sub>R<sup>a</sup> groups;

c) Aryl, HAR, Hetcy, -O-Aryl, -O-HAR and -O-Hetcy, each optionally substituted as set forth below:

(1) 1-3 C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl or C<sub>2-10</sub>alkynyl groups optionally substituted with 1-5

halo groups; 1-2 OH groups; phenyl optionally substituted with 1-3 halo, C<sub>1-6</sub> alkyl or C<sub>1-6</sub>

alkoxy groups, the alkyl and alkoxy groups being further optionally substituted with 1-3 halo

groups; CO<sub>2</sub>R<sup>a</sup>; CN or S(O)<sub>p</sub>R<sup>d</sup> groups; and

(2) 1-3 C<sub>1-10</sub>alkoxy groups, the alkyl portion of which is optionally substituted with 1-5 halo groups, 1-2 OH; phenyl optionally substituted with 1-3 halo, C<sub>1-6</sub> alkyl or C<sub>1-6</sub> alkoxy groups, the alkyl and alkoxy groups being further optionally substituted with 1-3 halo groups; CO<sub>2</sub>R<sup>a</sup>; CN or S(O)<sub>p</sub>R<sup>d</sup> groups;

5 said Aryl, HAR, Hetcy -O-Aryl, -O-HAR and -O-Hetcy group c) being further optionally substituted on carbon by a group selected from the group consisting of;

- (3) 1-5 halo groups;
- (4) 1-2 OH groups;
- (5) 1 S(O)<sub>p</sub>R<sup>d</sup>, NO<sub>2</sub> or CN group;
- 10 (6) 1-2 CO<sub>2</sub>R<sup>a</sup>;
- (7) -C(O)NR<sup>b</sup>R<sup>c</sup>;

each R<sup>2</sup> represents H or is independently selected from the group consisting of:

a) OH, halo, CO<sub>2</sub>R<sup>a</sup>, C(O)NR<sup>b</sup>R<sup>c</sup>, NR<sup>b</sup>R<sup>c</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup>;

15 c) C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl, C<sub>2-10</sub>alkynyl, OC<sub>1-10</sub>alkyl, OC<sub>3-10</sub>alkenyl and OC<sub>3-10</sub>alkynyl, said groups being optionally substituted with:

- (1) 1-5 halo groups up to a perhaloalkyl group;
- (2) 1 oxo group;
- (3) 1 OH group;
- 20 (4) 1 C<sub>1-10</sub>alkoxy group, each optionally substituted with:  
up to five halo or a perhaloalkoxy, 1 OH or CO<sub>2</sub>R<sup>a</sup> group;
- (5) 1 CO<sub>2</sub>R<sup>a</sup> or S(O)<sub>p</sub>R<sup>d</sup>;
- (6) 1 Aryl, Hetcy or HAR group, each optionally substituted as follows:

(a) 1-5 halo groups,

25 (b) 1 OH, CO<sub>2</sub>R<sup>a</sup>, CN, S(O)<sub>p</sub>R<sup>d</sup>, NO<sub>2</sub> or C(O)NR<sup>b</sup>R<sup>c</sup>,

(c) 1-2 C<sub>1-10</sub>alkyl or alkoxy groups, each optionally substituted with:

1-5 halo, up to perhaloalkyl, and 1-2 OH or CO<sub>2</sub>R<sup>a</sup> groups; and

(d) ~~1-2 phenyl groups~~, each of which is optionally substituted as

follows: 1-5 halo groups up to perhalo; 1-3 C<sub>1-10</sub>alkyl or alkoxy groups, each being further optionally  
30 substituted with 1-5 halo up to perhalo; and 1-2 hydroxy or CO<sub>2</sub>R<sup>a</sup> groups;

c) Aryl, HAR, Hetcy, -O-Aryl, -O-HAR and -O-Hetcy, each optionally substituted as set forth below:

(1) 1-3 C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl or C<sub>2-10</sub>alkynyl groups optionally substituted with 1-5 halo groups, 1-2 OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup> groups;

(2) 1-3 C<sub>1-10</sub>alkoxy groups, the alkyl portion of which is optionally substituted with 1-5 halo groups, 1-2 OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup> groups; said Aryl, HAR or Hetcy group c) being further optionally substituted on carbon by a group selected from the group consisting of;

- 5 (3) 1-5 halo groups up to perhalo;  
 (4) 1 OH group;  
 (5) 1 S(O)<sub>p</sub>R<sup>d</sup>, NO<sub>2</sub> or CN group;  
 (6) 1 CO<sub>2</sub>R<sup>a</sup>;

10 R<sup>3</sup> is selected from the group consisting of:

- a) C<sub>1-10</sub>alkyl or C<sub>2-10</sub>alkenyl, each optionally substituted with 1-5 halo groups up to perhalo;  
 1-2 OH, C<sub>1-3</sub>alkoxy or haloC<sub>1-3</sub>alkoxy groups;  
 1-2 NR<sup>c</sup>R<sup>d</sup> groups; and

15 1-2 Aryl, HAR or Hetcy groups, each optionally substituted with 1-3 halo groups and 1-2 groups selected from CN, NO<sub>2</sub>, C<sub>1-3</sub>alkyl, haloC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy and haloC<sub>1-3</sub> alkoxy groups,

b) Aryl, HAR or Hetcy, each optionally substituted with 1-3 halo groups and 1-2 groups selected from CN, NO<sub>2</sub>, C<sub>1-3</sub>alkyl, haloC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy and haloC<sub>1-3</sub> alkoxy groups;

20 R<sup>4</sup> is independently selected from the group consisting of: Aryl, HAR or Hetcy, each optionally substituted as set forth below:

(1) 1-3 C<sub>1-14</sub>alkyl, C<sub>2-10</sub>alkenyl or C<sub>2-10</sub>alkynyl groups optionally substituted with 1-5 halo groups, 1-2 OH, CO<sub>2</sub>R<sup>a</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup> groups or phenyl optionally substituted as follows: 1-5 halo groups up to perhalo; 1-3 C<sub>1-10</sub>alkyl or alkoxy groups, each being further optionally substituted with 1-5 halo up to perhalo, or 1-2 hydroxy or CO<sub>2</sub>R<sup>a</sup> groups;

25 (2) 1-3 C<sub>1-10</sub>alkoxy or C<sub>3-10</sub>alkenyloxy groups, the alkyl portion of which is optionally substituted with 1-5 halo groups, 1-2 OH, CO<sub>2</sub>R<sup>a</sup>, CN, S(O)<sub>p</sub>R<sup>d</sup>, and phenyl optionally substituted as follows: 1-5 halo groups up to perhalo; 1-3 C<sub>1-10</sub>alkyl or alkoxy groups, each being further optionally substituted with 1-5 halo up to perhalo, or 1-2 hydroxy or CO<sub>2</sub>R<sup>a</sup> groups;

30 (3) 1-2 Aryl, HAR or Hetcy, OAr, OHAR or OHetcy groups, each optionally substituted as follows:

- (i) 1-3 halo groups;  
 (ii) 1-2 C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl or C<sub>2-10</sub>alkynyl groups each optionally substituted with 1-5 halo groups, 1-2 OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup> groups;

35

(iii) 1-2 C<sub>1-10</sub>alkoxy groups the alkyl portion of which being optionally substituted with 1-5 halo groups, 1-2 OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup> groups; and

(iv) 1-2 CO<sub>2</sub>R<sup>a</sup>, S(O)<sub>p</sub>R<sup>d</sup>, CN, NR<sup>b</sup>R<sup>c</sup>, NO<sub>2</sub> or OH groups;

5 said Aryl, HAR or Hetcy group R<sup>4</sup> being further optionally substituted on carbon by a group selected from the group consisting of;

(4) 1-5 halo groups;

(5) 1-2 OH groups;

(6) 1 S(O)<sub>p</sub>R<sup>d</sup>, NO<sub>2</sub> or CN group;

10 (7) 1-2 CO<sub>2</sub>R<sup>a</sup>;

R<sup>5</sup> represents H or C<sub>1-6</sub> alkyl;

R<sup>6</sup> is selected from the group consisting of H, OH, F or C<sub>1-3</sub>alkyl;

R<sup>7</sup> is H or F, or R<sup>6</sup> and R<sup>7</sup> are taken in combination and represent oxo;

15 R<sup>8</sup> represents H or C<sub>1-6</sub> alkyl, optionally substituted with OH and 1-5 halo groups up to perhalo;

R<sup>9</sup> represents H, halo, OH, C<sub>1-6</sub>alkyl, optionally substituted with 1-5 halo groups up to perhalo, or C<sub>1-6</sub>alkoxy, optionally substituted with 1-3 halo groups up to perhalo,

20 or when R<sup>9</sup> is ortho to the benzylic group, R<sup>8</sup> and R<sup>9</sup> can be taken together and represent a - (CH<sub>2</sub>)<sub>2-4</sub>- or a -O-(CH<sub>2</sub>)<sub>1-3</sub>- group;

R<sup>a</sup> is H or C<sub>1-10</sub>alkyl, optionally substituted with phenyl, OH, OC<sub>1-6</sub>alkyl, CO<sub>2</sub>H, CO<sub>2</sub>C<sub>1-6</sub>alkyl and 1-3 halo groups;

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R<sup>b</sup> is H or C<sub>1-10</sub>alkyl;

R<sup>c</sup> is H or is independently ~~selected from~~:

(a) C<sub>1-10</sub>alkyl, optionally substituted with OH, OC<sub>1-6</sub>alkyl, CO<sub>2</sub>H, CO<sub>2</sub>C<sub>1-</sub>

30 <sub>6</sub>alkyl, and 1-3 halo groups;

(b) Aryl or Ar-C<sub>1-6</sub>alkyl, each optionally substituted with 1-5 halos and 1-3 members selected from the group consisting of: CN, OH, C<sub>1-10</sub>alkyl and OC<sub>1-10</sub> alkyl, said alkyl and alkoxy being further optionally substituted with 1-5 halo groups up to perhalo;

(c) Hetcy or Hetcy-C<sub>1-6</sub>alkyl, optionally substituted with 1-5 halo groups and 1-3 groups selected from: oxo, C<sub>1-10</sub>alkyl and OC<sub>1-10</sub> alkyl, said alkyl and alkoxy being further optionally substituted with 1-5 halo groups up to perhalo; and

(d) HAR or HAR-C<sub>1-6</sub>alkyl, optionally substituted with 1-5 halo groups and 1-3 groups selected from: C<sub>1-10</sub>alkyl and OC<sub>1-10</sub> alkyl, said alkyl and alkoxy being further optionally substituted with 1-5 halo groups up to perhalo;

R<sup>d</sup> is C<sub>1-10</sub>alkyl, Aryl or Ar-C<sub>1-10</sub>alkyl;

m is an integer selected from 0, 1 and 2;

10 n is an integer selected from 0 to 6;

p is an integer selected from 0, 1 and 2, and

when at least one of m and n is other than 0, Z is selected from CO<sub>2</sub>R<sup>a</sup>, 5-tetrazolyl and 5-(2-oxo-1,3,4-oxadiazolyl), and when both m and n are 0, Z is selected from 5-tetrazolyl and 5-(2-oxo-1,3,4-oxadiazolyl).

15 2. A compound in accordance with claim 1 wherein R<sup>1</sup> is selected from the group consisting of: H, halo, C<sub>1-10</sub>alkyl and OC<sub>1-10</sub>alkyl, said alkyl and O-alkyl groups being optionally substituted with 1-5 halo groups up to a perhaloalkyl or perhaloalkoxy.

20 3. A compound in accordance with claim 2 wherein R<sup>1</sup> is selected from the group consisting of: H, halo, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, said alkyl and alkoxy being optionally substituted with 1-3 halo groups.

25 4. A compound in accordance with claim 1 wherein each R<sup>2</sup> represents H or is independently selected from the group consisting of:

a) halo or S(O)<sub>p</sub>R<sup>d</sup>; wherein p is 2 and R<sup>d</sup> represents C<sub>1-10</sub>alkyl;

b) C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl, OC<sub>1-10</sub>alkyl and OC<sub>3-10</sub>alkenyl, said groups being optionally substituted with:

(1) 1-5 halo groups up to a perhaloalkyl group;

30 (2) 1 C<sub>1-10</sub>alkoxy group, each optionally substituted with:  
up to five halo or perhaloalkoxy, 1 OH or CO<sub>2</sub>R<sup>a</sup> group;

(3) 1 Aryl or HAR group, each optionally substituted as follows:

(a) 1-5 halo groups,

(b) 1-2 C<sub>1-10</sub>alkyl or alkoxy groups, each optionally substituted with:

35 1-5 halo, up to perhaloalkyl, and 1-2 OH or CO<sub>2</sub>R<sup>a</sup> groups;

c) Aryl or HAR, each optionally substituted with:

- (1) 1-2 C<sub>1-10</sub>alkyl groups optionally substituted with 1-5 halo groups;
- (2) 1-2 C<sub>1-10</sub>alkoxy groups, the alkyl portion of which is optionally substituted with 1-5 halo groups;

5 said Aryl or HAR being further optionally substituted on carbon by 1-3 halo groups; up to perhalo.

5. A compound in accordance with claim 4 wherein one R<sup>2</sup> group represents H and the other represents H or is selected from the group consisting of:

- a) halo or S(O)<sub>p</sub>R<sup>d</sup>; wherein p is 2 and R<sup>d</sup> represents C<sub>1-10</sub>alkyl;
- b) C<sub>1-10</sub>alkyl, C<sub>2-10</sub>alkenyl, OC<sub>1-10</sub>alkyl or OC<sub>3-10</sub>alkenyl, said groups being optionally substituted

10 with:

- (1) 1-5 halo groups up to a perhaloalkyl group;
- (2) 1 C<sub>1-10</sub>alkoxy group, each optionally substituted with:  
up to five halo or a perhaloalkoxy, 1 OH or CO<sub>2</sub>R<sup>a</sup> group;
- (3) 1 Aryl or HAR group, each optionally substituted as follows:

15

(a) 1-5 halo groups,

(b) 1-2 C<sub>1-10</sub>alkyl or alkoxy groups, each optionally substituted with:

1-5 halo, up to perhaloalkyl, and 1-2 OH or CO<sub>2</sub>R<sup>a</sup> groups;

c) Aryl or HAR, each optionally substituted with:

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(1) 1-2 C<sub>1-10</sub>alkyl groups optionally substituted with 1-5 halo groups;

(2) 1-2 C<sub>1-10</sub>alkoxy groups, the alkyl portion of which is optionally substituted with

1-5 halo groups;

said Aryl or HAR being further optionally substituted on carbon by 1-3 halo groups; up to perhalo.

Within this subset, all other variables are as originally defined with respect to formula I.

6. A compound in accordance with claim 5 wherein:

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one R<sup>2</sup> group represents H and the other represents H or a member selected from the group consisting of:

a) halo or S(O)<sub>p</sub>R<sup>d</sup>; wherein p is 2 and R<sup>d</sup> represents C<sub>1-2</sub>alkyl;

b) C<sub>1-4</sub>alkyl, C<sub>2-4</sub>alkenyl, OC<sub>1-4</sub>alkyl or OC<sub>3-4</sub>alkenyl, said groups being optionally substituted

with:

30

(1) 1-5 halo groups up to a perhaloalkyl group;

(2) 1 C<sub>1-4</sub>alkoxy group, optionally substituted with:  
up to 3 halo or a perhaloalkoxy group;

(3) 1 Aryl or HAR group, each optionally substituted as follows:

(a) 1-3 halo groups,

(b) 1 C<sub>1-4</sub>alkyl or alkoxy group, each optionally substituted with: 1-3 halo, up to perhaloalkyl, groups;

c) Aryl or HAR, each optionally substituted with:

(1) 1-2 C<sub>1-4</sub>alkyl groups optionally substituted with 1-3 halo groups;

5 (2) 1-2 C<sub>1-4</sub>alkoxy groups, the alkyl portion of which is optionally substituted with 1-3 halo groups;

said Aryl or HAR being further optionally substituted on carbon by 1-3 halo groups; up to perhalo.

7. A compound in accordance with claim 1 wherein R<sup>3</sup> is selected from the group consisting of:

10 a) C<sub>1-6</sub>alkyl optionally substituted with:

1-3 halo groups up to perhalo;

1 OH, C<sub>1-3</sub>alkoxy or haloC<sub>1-3</sub>alkoxy group;

1 NR<sup>c</sup>R<sup>d</sup> group; and

15 1 Aryl or HAR group, each optionally substituted with 1-3 halo groups and 1-2 groups selected from C<sub>1-3</sub>alkyl, haloC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy and haloC<sub>1-3</sub> alkoxy groups,

b) Aryl or HAR, each optionally substituted with 1-3 halo groups and 1-2 groups selected from C<sub>1-3</sub>alkyl, haloC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy and haloC<sub>1-3</sub> alkoxy groups.

8. A compound in accordance with claim 7 wherein R<sup>3</sup> is selected from the group consisting of:

20 a) C<sub>1-6</sub>alkyl optionally substituted with:

1-3 halo groups up to perhalo;

1 C<sub>1-3</sub>alkoxy or haloC<sub>1-3</sub>alkoxy group;

1 NR<sup>c</sup>R<sup>d</sup> group; wherein R<sup>c</sup> and R<sup>d</sup> are independently selected from H, C<sub>1-3</sub>alkyl and phenyl; and

25 1 Aryl or HAR group, each optionally substituted with 1-3 halo groups and 1-2 groups selected from C<sub>1-3</sub>alkyl, haloC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy and haloC<sub>1-3</sub>alkoxy groups,

b) Aryl or HAR, each optionally substituted with 1-3 halo groups and 1 group selected from: C<sub>1-3</sub>alkyl, haloC<sub>1-3</sub>alkyl, C<sub>1-3</sub>alkoxy and haloC<sub>1-3</sub> alkoxy.

30 9. A compound in accordance with claim 1 wherein:

R<sup>4</sup> represents an Aryl or HAR group, each optionally substituted as set forth below:

(1) 1-2 C<sub>1-10</sub>alkyl or C<sub>2-10</sub>alkenyl groups, which are optionally substituted with 1-3 halo groups, or phenyl optionally substituted with 1-2 halo, C<sub>1-4</sub>alkyl or alkoxy groups, each being further optionally substituted with 1-3 halo groups;

(2) 1-2 C<sub>1-10</sub>alkoxy or C<sub>3-10</sub>alkenyloxy groups, which are optionally substituted with 1-3 halo groups, 1-2 OH or S(O)<sub>p</sub>R<sup>d</sup>, and phenyl optionally substituted as follows: 1-3 halo groups up to perhalo; 1-2 C<sub>1-6</sub>alkyl or alkoxy groups, each being further optionally substituted with 1-3 halo up to perhalo, or 1-2 hydroxy or CO<sub>2</sub>R<sup>a</sup> groups;

(3) 1-2 Aryl, HAR or Hetcy, OArly, OHAR or OHetcy groups, each optionally substituted as follows:

(i) 1-3 halo groups;

(ii) 1-2 C<sub>1-3</sub>alkyl or C<sub>2-4</sub>alkenyl groups each optionally substituted with 1-3 halo groups, and 1 of OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN and S(O)<sub>p</sub>R<sup>d</sup>;

(iii) 1-2 C<sub>1-3</sub>alkoxy groups the alkyl portion of which being optionally substituted with 1-3 halo groups, and 1 of OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN or S(O)<sub>p</sub>R<sup>d</sup>; and

(iv) 1-2 CO<sub>2</sub>R<sup>a</sup>, S(O)<sub>p</sub>R<sup>d</sup>, CN, NR<sup>b</sup>R<sup>c</sup>, NO<sub>2</sub> or OH groups;

said Aryl, HAR or Hetcy group R<sup>4</sup> being further optionally substituted on carbon by a group selected from the group consisting of;

(4) 1-5 halo groups;

(5) 1-2 OH groups;

(6) 1 S(O)<sub>p</sub>R<sup>d</sup>, NO<sub>2</sub> or CN group.

10. A compound in accordance with claim 1 wherein R<sup>5</sup> represents H or CH<sub>3</sub>.

11. A compound in accordance with claim 1 wherein R<sup>8</sup> is selected from the group consisting of H and C<sub>1-3</sub>alkyl.

12. A compound in accordance with claim 1 wherein R<sup>6</sup> and R<sup>7</sup> represent H.

13. A compound in accordance with claim 9 wherein R<sup>9</sup> represents H.

14. A compound in accordance with claim 1 wherein m is 0 and n is an integer selected from 0 to 2.

15. A compound in accordance with claim 1 wherein when n is 1 or 2, Z is selected from CO<sub>2</sub>R<sup>a</sup> and 5-tetrazolyl, when both m and n are 0, Z is 5-tetrazolyl.

16. A compound in accordance with claim 1 wherein:



$R^1$  is selected from the group consisting of: H, halo,  $C_{1-10}$ alkyl and  $OC_{1-10}$ alkyl, said alkyl and O-alkyl groups being optionally substituted with 1-5 halo groups up to a perhaloalkyl or perhaloalkoxy;

each  $R^2$  represents H or is independently selected from the group consisting of:

a) halo or  $S(O)_pR^d$ , wherein p is 2 and  $R^d$  represents  $C_{1-10}$ alkyl;

b)  $C_{1-10}$ alkyl,  $C_{2-10}$ alkenyl,  $OC_{1-10}$ alkyl and  $OC_{3-10}$ alkenyl, said groups being optionally substituted with:

(1) 1-5 halo groups up to perhaloalkyl;

(2) 1  $C_{1-10}$ alkoxy group, each optionally substituted with:  
up to five halo or perhaloalkoxy, 1 OH or  $CO_2R^a$  group;

(3) 1 Aryl or HAR group, each optionally substituted as follows:

(a) 1-5 halo groups,

(b) 1-2  $C_{1-10}$ alkyl or alkoxy groups, each optionally  
substituted with: 1-5 halo, up to perhaloalkyl, and 1-2 OH or  $CO_2R^a$

groups;

c) Aryl or HAR, each optionally substituted with:

(1) 1-2  $C_{1-10}$ alkyl groups optionally substituted with 1-5 halo groups;

(2) 1-2  $C_{1-10}$ alkoxy groups, the alkyl portion of which is optionally  
substituted with 1-5 halo groups;

said Aryl or HAR being further optionally substituted on carbon by 1-3 halo groups; up to perhalo;

$R^3$  is selected from the group consisting of:

a)  $C_{1-6}$ alkyl optionally substituted with:

1-3 halo groups up to perhalo;

1 OH,  $C_{1-3}$ alkoxy or halo $C_{1-3}$ alkoxy group;

1  $NR^cR^d$  group; and

1 Aryl or HAR group, each optionally substituted with 1-3 halo groups and 1-2  
groups selected from  $C_{1-3}$ alkyl, halo $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy and halo $C_{1-3}$  alkoxy;

b) Aryl or HAR, each optionally substituted with 1-3 halo groups and 1-2 groups selected from  
 $C_{1-3}$ alkyl, halo $C_{1-3}$ alkyl,  $C_{1-3}$ alkoxy and halo $C_{1-3}$  alkoxy;

$R^4$  represents an Aryl or HAR group, each optionally substituted as set forth below:

(1) 1-2  $C_{1-10}$ alkyl or  $C_{2-10}$ alkenyl groups, which are optionally substituted with 1-3  
halo groups, or phenyl optionally substituted with 1-2 halo,  $C_{1-4}$ alkyl or alkoxy groups, each  
being further optionally substituted with 1-3 halo groups;

(2) 1-2  $C_{1-10}$ alkoxy or  $C_{3-10}$ alkenyloxy groups, which are optionally substituted with  
1-3 halo groups, 1-2 OH or  $S(O)_pR^d$ , and phenyl optionally substituted as follows: 1-3 halo

groups up to perhalo; 1-2 C<sub>1-6</sub>alkyl or alkoxy groups, each being further optionally substituted with 1-3 halo up to perhalo, or 1-2 hydroxy or CO<sub>2</sub>R<sup>a</sup> groups;

(3) 1-2 Aryl, HAR or Hetcy, OArly, OHAR or OHetcy groups, each optionally substituted as follows:

- (i) 1-3 halo groups;
- (ii) 1-2 C<sub>1-3</sub>alkyl or C<sub>2-4</sub>alkenyl groups each optionally substituted with 1-3 halo groups, and 1 of OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN and S(O)<sub>p</sub>R<sup>d</sup>;
- (iii) 1-2 C<sub>1-3</sub>alkoxy groups the alkyl portion of which being optionally substituted with 1-3 halo groups, and 1 of OH, phenyl, CO<sub>2</sub>R<sup>a</sup>, CN and S(O)<sub>p</sub>R<sup>d</sup>; and
- (iv) 1-2 CO<sub>2</sub>R<sup>a</sup>, S(O)<sub>p</sub>R<sup>d</sup>, CN, NR<sup>b</sup>R<sup>c</sup>, NO<sub>2</sub> or OH groups;

said Aryl, HAR or Hetcy group R<sup>4</sup> being further optionally substituted on carbon by a group selected from the group consisting of;

- (4) 1-5 halo groups;
- (5) 1-2 OH groups;
- (6) 1 S(O)<sub>p</sub>R<sup>d</sup>, NO<sub>2</sub> or CN group;

R<sup>5</sup> represents H or CH<sub>3</sub>;

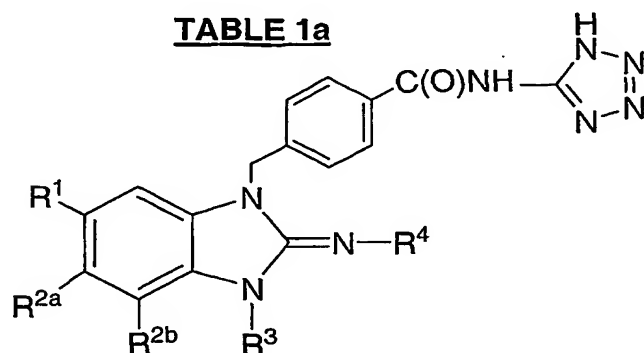
R<sup>8</sup> is selected from the group consisting of H and C<sub>1-3</sub>alkyl;

R<sup>6</sup>, R<sup>7</sup> and R<sup>9</sup> represents H;

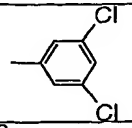

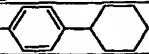

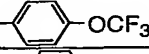
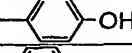
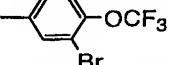
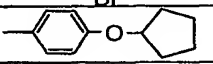
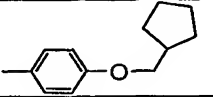
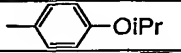
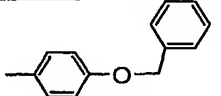
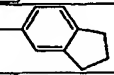
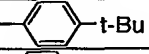
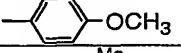
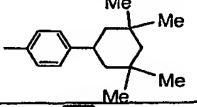
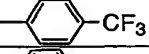
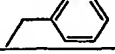
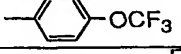
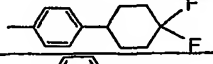
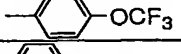
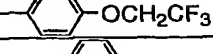
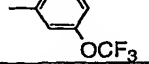
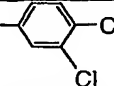
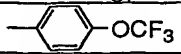
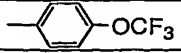
and m is 0 and n is an integer selected from 0 to 2, such that when n is 1 or 2, Z is selected from CO<sub>2</sub>R<sup>a</sup> and 5-tetrazolyl, and when both m and n are 0, Z is 5-tetrazolyl.

17. A compound in accordance with claim 16 wherein R<sup>1</sup> is selected from the group consisting of: H, halo, C1-4 alkyl, C1-4 alkoxy, said alkyl and alkoxy being optionally substituted with 1-3 halo groups.

18. A compound in accordance with claim 1 selected from Table 1a or 1b below:

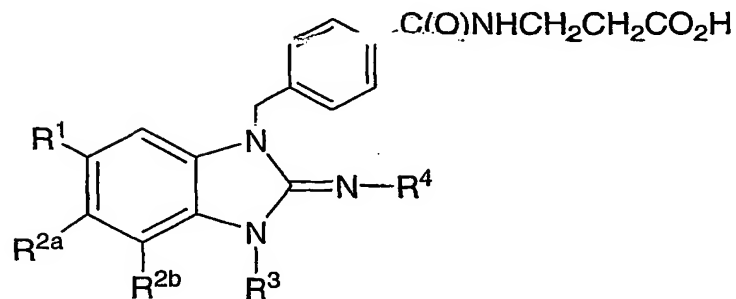
**TABLE 1a**

Cpd	R <sup>1</sup>	R <sup>2a</sup>	R <sup>2b</sup>	R <sup>3</sup>	R <sup>4</sup>
1	H	H	H	-Me	
2	Cl	Cl	H	-Et	
3	Cl	H	H	-Me	
4	Cl	Cl	H	-Et	
5	-OCF <sub>3</sub>	H	H	-Me	
6	Cl	H	-O(CH <sub>2</sub> ) <sub>2</sub> CH <sub>3</sub>	-Et	
7	-CF <sub>3</sub>	Cl	H	-Me	
8	Cl	Cl	H	-Me	
9	Cl	H	Cl	-Me	
10	-CF <sub>3</sub>	H	H	-Me	
11	Cl	Cl	H	-Me	
12	-CF <sub>3</sub>	H	H	-Me	
13	H	Cl	H	-Me	
14	Cl	Cl	H	-Me	
18	-CF <sub>3</sub>	H	H	-Et	
19	H	H	H	-Me	
20	-OMe	H	H	-Me	

22	Cl	Cl	H	-Me	
23	Cl	Cl	H	-Me	
24	Cl	Cl	H	-Me	
26	-CF <sub>3</sub>	H	H	-Me	
27	-OnPr	H	H	-Me	
28	Cl	Cl	H	-Me	
31	Cl	Cl	H	-Et	
32	Cl	Cl	H	-Me	
33	Cl	Cl	H	-Me	
34	Cl	Cl	H	-Me	
35	Cl	Cl	H	-Me	
36	Cl	Cl	H	-Me	
37	Cl	Cl	H	-Me	
38	Cl	Cl	H	-Me	
39	-OMe	H	H	-Me	
40	Cl	Cl	H	-Me	
41	Cl	Cl	H		
42	-OMe	H	H	-Me	
43	Cl	H	-OnBu	-Me	
44	H	-OnPr	H	-Me	
45	Cl	Cl	H	-Me	
46	Cl	Cl	H	-Me	
47	Cl	Cl	H	-CH <sub>2</sub> CH <sub>2</sub> F	
48	Cl	Cl	H	iPr	

49	Cl	Cl	H	$-(CH_2)_2OMe$	
50	Cl	Cl	H	$-(CH_2)_2NMe_2$	
51	CF <sub>3</sub>	H	H	Me	
52	CF <sub>3</sub>	H	CF <sub>3</sub>	Me	
53	Cl	Cl	H	$-(CH_2)_3OMe$	
54	CF <sub>3</sub>	H	H	Me	
55	CF <sub>3</sub>	H	Br	Me	
56	Cl	Cl	H	$-(CH_2)_3NMe_2$	
57	OMe	H	H	Me	
58	Cl	H	OMe	Me	
59	CF <sub>3</sub>	H	Et	Me	
60	Cl	H	OMe	Me	
61	H	-OnPr	H	Me	
62	CF <sub>3</sub>	H	$-CH=CH_2$	Me	
63	CF <sub>3</sub>	H	SO <sub>2</sub> Me	Me	
64	CF <sub>3</sub>	H	H	Me	
65	CF <sub>3</sub>	H	Et	Me	
66	CF <sub>3</sub>	H	Me	Me	
67	CF <sub>3</sub>	H	Et	Me	
68	CF <sub>3</sub>	H	Et	Me	
69	Cl	H	OiPr	Me	
70	Cl	H	OnPr	Me	
71	CF <sub>3</sub>	H		Me	
72	Cl	H	OEt	Me	
73	CF <sub>3</sub>	H	H	Me	
74	Cl	H	OMe	Me	
75	CF <sub>3</sub>	H	Et	Me	

76	OMe	H	H	Me	
77	CF <sub>3</sub>	H	OnBu	Me	
78	CF <sub>3</sub>	H	Et	Me	
79	L	H	OMe	Me	
80	F	H	H	Me	
81	CF <sub>3</sub>	H	OMe	Me	
82	Cl	H	OH	Me	
83	OMe	H	H	Me	
84	CF <sub>3</sub>	H	OnPr	Me	
85	CF <sub>3</sub>	H	OMe	Me	
86	CF <sub>3</sub>	H	OMe	Me	
87	H	H	OnPr	Me	
88	CF <sub>3</sub>	H	OnPr	Me	
90	CF <sub>3</sub>	H	OEt	Me	
91	CF <sub>3</sub>	H	Et	Et	
92	CF <sub>3</sub>	H	Et	Et	
95	CF <sub>3</sub>	H	Cl	Me	
96	CF <sub>3</sub>	H	H	Me	
97	H	OnPr	H	Me	

**TABLE 1b**

Cpd	R <sup>1</sup>	R <sup>2a</sup>	R <sup>2b</sup>	R <sup>3</sup>	R <sup>4</sup>
15	H	Cl	H	Me	
17	Cl	Cl	H	Me	
21	OMe	H	H	Me	
25	Cl	Cl	H	Me	
29	CF3	H	H	Me	
30	CF3	H	H	Me	
89	Cl	H	OnPr	Et	
93	H	H	OnPr	Me	
94	CF3	H	H	Me	

or a pharmaceutically acceptable salt or solvate thereof.

19. A pharmaceutical composition comprising a compound in accordance with  
5 claim 1 in combination with a pharmaceutically acceptable carrier.

20. A method of treating type 2 diabetes mellitus in a mammalian patient in  
need of such treatment comprising administering to said patient a compound in accordance with  
claim 1 in an amount that is effective to treat said type 2 diabetes mellitus.

10

21. A method of delaying the onset of type 2 diabetes mellitus in a mammalian  
patient in need thereof, comprising administering to the patient a compound in accordance with  
claim 1 in an amount that is effective to delay the onset of said type 2 diabetes mellitus.

22. A method of treating hyperglycemia, diabetes or insulin resistance in a  
mammalian patient in need of such treatment which comprises administering to said patient an  
effective amount of a compound in accordance with claim 1.

15

23. A method of treating non-insulin dependent diabetes mellitus in a  
mammalian patient in need of such treatment comprising administering to the patient an anti-  
diabetic effective amount of a compound in accordance with claim 1.

20

24. A method of treating obesity in a mammalian patient in need of such treatment comprising administering to said patient a compound in accordance with claim 1 in an amount that is effective to treat obesity.

5 25. A method of treating Syndrome X in a mammalian patient in need of such treatment, comprising administering to said patient a compound in accordance with claim 1 in an amount that is effective to treat Syndrome X.

10 26. A method of treating a lipid disorder selected from the group consisting of dyslipidemia, hyperlipidemia, hypertriglyceridemia, hypercholesterolemia, low HDL and high LDL in a mammalian patient in need of such treatment, comprising administering to said patient a compound in accordance with claim 1 in an amount that is effective to treat said lipid disorder.

15 27. A method of treating atherosclerosis in a mammalian patient in need of such treatment, comprising administering to said patient a compound in accordance with claim 1 in an amount effective to treat atherosclerosis.

20 28. A method of treating a condition selected from the group consisting of: (1) hyperglycemia, (2) low glucose tolerance, (3) insulin resistance, (4) obesity, (5) lipid disorders, (6) dyslipidemia, (7) hyperlipidemia, (8) hypertriglyceridemia, (9) hypercholesterolemia, (10) low HDL levels, (11) high LDL levels, (12) atherosclerosis and its sequelae, (13) vascular restenosis, (14) pancreatitis, (15) abdominal obesity, (16) neurodegenerative disease, (17) retinopathy, (18) nephropathy, (19) neuropathy, (20) Syndrome X, and other conditions and disorders where insulin resistance is a component, in a  
25 mammalian patient in need of such treatment, comprising administering to the patient a compound in accordance with Claim 1 in an amount that is effective to treat said condition.

30 29. A method of delaying the onset of a condition selected from the group consisting of (1) hyperglycemia, (2) low glucose tolerance, (3) insulin resistance, (4) obesity, (5) lipid disorders, (6) dyslipidemia, (7) hyperlipidemia, (8) hypertriglyceridemia, (9) hypercholesterolemia, (10) low HDL levels, (11) high LDL levels, (12) atherosclerosis and its sequelae, (13) vascular restenosis, (14) pancreatitis, (15) abdominal obesity, (16) neurodegenerative disease, (17) retinopathy, (18) nephropathy, (19) neuropathy, (20) Syndrome X, and other conditions and disorders where insulin resistance is a component in a  
35 mammalian patient in need of such treatment, comprising administering to the patient a



compound in accordance with Claim 1 in an amount that is effective to delay the onset of said condition.

30. A method of reducing the risk of developing a condition selected from the group consisting of (1) hyperglycemia, (2) low glucose tolerance, (3) insulin resistance, (4) obesity, (5) lipid disorders, (6) dyslipidemia, (7) hyperlipidemia, (8) hypertriglyceridemia, (9) hypercholesterolemia, (10) low HDL levels, (11) high LDL levels, (12) atherosclerosis and its sequelae, (13) vascular restenosis, (14) pancreatitis, (15) abdominal obesity, (16) neurodegenerative disease, (17) retinopathy, (18) nephropathy, (19) neuropathy, (20) Syndrome X, and other conditions and disorders where insulin resistance is a component in a mammalian patient in need of such treatment, comprising administering to the patient a compound in accordance with Claim 1 in an amount that is effective to reduce the risk of developing said condition.

31. A method of treating a condition selected from the group consisting of (1) hyperglycemia, (2) low glucose tolerance, (3) insulin resistance, (4) obesity, (5) lipid disorders, (6) dyslipidemia, (7) hyperlipidemia, (8) hypertriglyceridemia, (9) hypercholesterolemia, (10) low HDL levels, (11) high LDL levels, (12) atherosclerosis and its sequelae, (13) vascular restenosis, (14) pancreatitis, (15) abdominal obesity, (16) neurodegenerative disease, (17) retinopathy, (18) nephropathy, (19) neuropathy, (20) Syndrome X, and other conditions and disorders where insulin resistance is a component, in a mammalian patient in need of such treatment, comprising administering to the patient an effective amount of a compound as defined in Claim 1, and a compound selected from the group consisting of:

- (a) DP-IV inhibitors;
- (b) insulin sensitizers selected from the group consisting of (i) PPAR agonists and (ii) biguanides;
- (c) insulin and insulin mimetics;
- (d) sulfonylureas and other insulin secretagogues;
- (e)  $\alpha$ -glucosidase inhibitors;
- (f) glucagon receptor antagonists;
- (g) GLP-1, GLP-1 mimetics, and GLP-1 receptor agonists;
- (h) GIP, GIP mimetics, and GIP receptor agonists;
- (i) PACAP, PACAP mimetics, and PACAP receptor 3 agonists;
- (j) cholesterol lowering agents selected from the group consisting of

(i) HMG-CoA reductase inhibitors, (ii) sequestrants, (iii) nicotinic alcohol, nicotinic acid and salts thereof, (iv) PPAR $\alpha$  agonists, (v) PPAR $\alpha/\gamma$  dual agonists, (vi) inhibitors of cholesterol absorption, (vii) acyl CoA:cholesterol acyltransferase inhibitors, (viii) anti-oxidants and (ix) LXR modulators;

- 5 (k) PPAR $\delta$  agonists;  
(l) antiobesity compounds;  
(m) an ileal bile acid transporter inhibitor  
(n) anti-inflammatory agents excluding glucocorticoids; and  
(o) protein tyrosine phosphatase-1B (PTP-1B) inhibitors,  
10 said compounds being administered to the patient in an amount that is effective to treat said condition.

32. A method of treating a condition selected from the group consisting of hypercholesterolemia, atherosclerosis, low HDL levels, high LDL levels, hyperlipidemia,  
15 hypertriglyceridemia and dyslipidemia, in a mammalian patient in need of such treatment, comprising administering to the patient a therapeutically effective amount of a compound as defined in Claim 1 and an HMG-CoA reductase inhibitor.

33. A method in accordance with Claim 33 wherein the HMG-CoA reductase  
20 inhibitor is a statin.

34. A method in accordance with Claim 34 wherein the statin is selected from the group consisting of lovastatin, simvastatin, pravastatin, fluvastatin, atorvastatin, itavastatin, ZD-4522 and rivastatin.

25 35. A method of reducing the risk of developing a condition selected from the group consisting of hypercholesterolemia, atherosclerosis, low HDL levels, high LDL levels, hyperlipidemia, hypertriglyceridemia and dyslipidemia, and the sequelae of such conditions comprising administering to a mammalian patient in need of such treatment a therapeutically  
30 effective amount of a compound as defined in Claim 1 and an HMG-CoA reductase inhibitor.

36. A method for delaying the onset or reducing the risk of developing atherosclerosis in a human patient in need of such treatment comprising administering to said patient an effective amount of a compound as defined in Claim 1, and an HMG-CoA reductase  
35 inhibitor.

37. A method in accordance with Claim 37, wherein the HMG-CoA reductase inhibitor is a statin.

5 38. A method in accordance with claim 38 wherein the statin is selected from the group consisting of: lovastatin, simvastatin, pravastatin, fluvastatin, atorvastatin, itavastatin, ZD-4522 and rivastatin.

39. A method in accordance with claim 39 wherein the statin is simvastatin.

10 40. A method in accordance with claim 40 further comprising administering a cholesterol absorption inhibitor.

15 41. A method in accordance with claim 41 wherein the cholesterol absorption inhibitor is ezetimibe.

20 42. A method for delaying the onset or reducing the risk of developing atherosclerosis in a human patient in need of such treatment comprising administering to said patient an effective amount of a compound as defined in Claim 1, and a cholesterol absorption inhibitor.

43. A method in accordance with claim 43 wherein the cholesterol absorption inhibitor is ezetimibe.

25 44. A pharmaceutical composition comprising  
(1) a compound according to Claim 1,  
(2) a compound selected from the group consisting of :  
(a) DP-IV inhibitors;  
(b) insulin sensitizers selected from the group consisting of (i) PPAR agonists  
30 and (ii) biguanides;  
(c) insulin and insulin mimetics;  
(d) sulfonylureas and other insulin secretagogues;  
(e)  $\alpha$ -glucosidase inhibitors;  
(f) glucagon receptor antagonists;  
35 (g) GLP-1, GLP-1 mimetics, and GLP-1 receptor agonists;

- (h) GIP, GIP mimetics, and GIP receptor agonists;
- (i) PACAP, PACAP mimetics, and PACAP receptor 3 agonists;
- (j) cholesterol lowering agents selected from the group consisting of (i) HMG-CoA reductase inhibitors, (ii) sequestrants, (iii) nicotinic alcohol, nicotinic acid or a salt thereof,
- 5 (iv) PPAR $\alpha$  agonists, (v) PPAR $\alpha/\gamma$  dual agonists, (vi) inhibitors of cholesterol absorption, (vii) acyl CoA:cholesterol acyltransferase inhibitors, (viii) anti-oxidants and (ix) LXR modulators;
- (k) PPAR $\delta$  agonists;
- (l) antiobesity compounds;
- 10 (m) an ileal bile acid transporter inhibitor;
- (n) anti-inflammatory agents other than glucocorticoids; and
- (o) protein tyrosine phosphatase-1B (PTP-1B) inhibitors;
- and
- (3) a pharmaceutically acceptable carrier.